11. (NEW) The nonaqueous secondary cell of claim 10, wherein the lithium composite manganese active material is expressed by a general formula $Li_xMn_{2-y}M_yO_4$, wherein $.09 \leq x \leq 1.4$; $y \leq .3$; and M is one or more materials selected from the group consisting of Ti, V, Cr, Fe, Co, Ni, and Al.

12. (NEW) The nonaqueous secondary cell of claim 11, wherein the positive electrode comprises about 86% of the positive electrode active material, about 10% graphite, and about 4% polyvinylidene fluoride.

13. (NEW) A method of producing a positive electrode material active material for a non-aqueous electrolyte cell, comprising:

(a) mixing a first ingredient with a lithium composite manganese oxide of about 86% by weight of the lithium composite manganese oxide;

(b) molding the mixture under pressure;

(c) sintering the mixture at a temperature not lower than 600°C and not higher than 900°C.

14. (NEW) The method of claim 13, further comprising pulverizing the sintered mixture.

15. (NEW) The method of claim 13, wherein the step of mixing the first ingredient further includes creating a slurry of 86% by weight of lithium composite manganese oxide, about 10% by weight of graphite, about 4% polyvinylidence fluoride, which then dissolved in a solvent.

16. (NEW) The method of claim 15, further comprising uniformly applying the slurry to aluminum foil to obtain a thickness of about 20 um.

17. (NEW) A nonaqueous electrolyte secondary cell, comprising:

(a) a positive electrode containing as a positive electrode active material a lithium composite manganese oxide having spinel structure and whose primary particle diameter is not

less than 0.05 μm and not greater than 10 μm, forming an aggregate, and whose specific surface measured by the BET method is not less than 0.2 m^2/g and not greater than 2 m^2/g;

(b) a negative electrode containing a carbon material selected from the group consisting of pyrocarbon, coke, glassy carbon, organic polymer compound sintered body, and carbon fiber; and

(c) an electrolyte.

18. (NEW) The nonaqueous electrolyte secondary cell of claim 17, wherein the negative electrode contains a material capable of reversively doping and dedoping lithium.

19. The nonaqueous electrolyte secondary cell of claim 18, wherein the material capable of reversively doping and dedoping lithium is at least one selected from the group consisting of a carbon material, metal lithium, lithium alloy, polyacene, and polypyrol.

20. (NEW) The nonaqueous electrolyte secondary cell of claim 17, wherein the positive electrode comprises about 86% of the positive electrode active material, about 10% graphite, and about 4% polyvinylidene fluoride.

21. (NEW) The nonaqueous electrolyte secondary cell of claim 17, wherein the electrolyte is at least one selected from the group consisting of $LiClO_4$, $LiAsF_6$, $LiPF_6$, $LiB(C_6H_5)_4$, LiCl, LiBr, CH_3SO_3Li, and CF_3SO_3Li.

22. (NEW) The nonaqueous electrolyte secondary cell of claim 17, wherein the electrolyte is dissolved in an organic solvent that is selected from the group consisting of propylene carbonate; ethylene carbonate; 1,2-dimethoxymethane; gamma-butyrolactone; tetrahydrofuran; 2-methyltetrahydrofuran; 1,3-dioxolane; sulfolane; acetonitrile; diethyl carbonate; and dipropyl carbonate.

Remarks